

CLAIMS

1. (Currently Amended) An integrated circuit comprising:
a bipolar junction transistor in which a base contact region forms a fishbone configuration having a spine with at least one finger that extends from one side of the spine and at least one finger that extends from a second side of the spine, wherein an emitter region is adjacent to ~~the~~ a periphery of said fishbone configuration.
2. (Original) The integrated circuit of claim 1, wherein an emitter contact region having an isomorphic shape with respect to said emitter region is in direct physical contact with the top surface of said emitter region.
3. (Original) The integrated circuit of claim 2, wherein said contact regions comprise a conductive material.
4. (Original) The integrated circuit of claim 3, wherein said conductive material comprises metal.
5. (Original) The integrated circuit of claim 1, wherein said bipolar junction transistor comprises at least one of the following semiconductor materials: Si, SiGe, GaAs, AlGaAs, InGaP, InP.
6. (Original) The integrated circuit of claim 1, wherein said bipolar junction transistor comprises a heterojunction bipolar transistor.

7. (Currently Amended) The integrated circuit of claim 6, wherein a base region contacting tab is embedded within an extension from a the spine of said fishbone configuration.

8. (Original) The integrated circuit of claim 6, wherein said heterojunction bipolar transistor is employed in a linear power amplifier.

9. (Original) The integrated circuit of claim 8, wherein said linear power amplifier is employed in a cell phone.

10. (Original) The integrated circuit of claim 6, wherein said heterojunction bipolar transistor is employed in a saturated power amplifier.

11. (Original) The integrated circuit of claim 10, wherein said saturated power amplifier is employed in a cell phone.

12. (Original) The integrated circuit of claim 6, wherein said heterojunction bipolar transistor comprises at least one of the following pairs of semiconductor materials: AlGaAs/GaAs and InGaP/GaAs.

13. (Original) The integrated circuit of claim 7, wherein dimensions of at least one of the extensions from said spine of said fishbone configuration comprises: 10 microns in length by 1 micron in width.

14. (Original) The integrated circuit of claim 7, wherein the shortest distance between said base region and said emitter region comprises on the order of about 15 to 20 microns.

15. (Original) The integrated circuit of claim 7, wherein said fishbone configuration includes at least five extensions connected to said spine.

16. (Original) The integrated circuit of claim 7, wherein said fishbone configuration includes at least six extensions connected to said spine.

17. (Currently Amended) A device comprising:
a bipolar heterojunction transistor, said transistor having a spine with at least one finger that extends from one side of the spine and at least one finger that extends from a second side of the spine, a collector-base capacitance (C_{cb}) and an extrinsic base resistance ($R_{b'}$);

wherein said C_{cb} of said transistor is at least approximately 20 percent less than comparable interdigital BEB type bipolar heterojunction transistors and said $R_{b'}$ is at least approximately 40 percent less than comparable interdigital EBE type bipolar heterojunction transistors.

18. (Original) The device of claim 17, wherein said C_{cb} of said transistor is at least approximately 25 percent less than comparable interdigital BEB type bipolar

heterojunction transistors and said R_b' is at least approximately 50 percent less than comparable interdigital EBE type bipolar heterojunction transistors.

19-24. (Canceled)